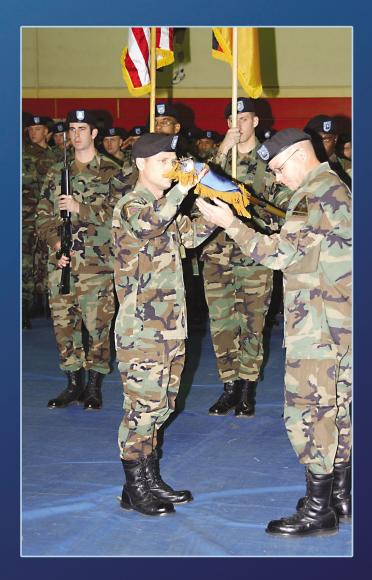t. Gregory F. Withrow

iation Battalion Upgrades Equipment

ves to Fort Hood to receive AH-64D Apache Longbow

Lt. Col. Robert Doerer and Command Sgt. Maj. Steven Remily case the colors of 1-501st AV during a ceremony in Hanau, Germany's Fliegerhoerst Kaserne, Dec. 9, in preparation to move to Fort Hood for training and refitting.

. . . a little about the

AH-64D Apache Longbow

Two censors located on the nose the Apache makes this attack helocopter specially designed to operate at night

The basic principle that makes vision at night reality, is called FLIR (Forward Looking Infra-Red).

All objects have a certain temperature, by measuring differences in that temperature a video-image can be produced that can be produced that can be used for both flying and target acquisition/designation. The pilot uses the so-called Pilot Night Vision Sensor (PNVS) located on the top of the nose, this device produces the FLIR-imagery used for flying. The co-pilot/gunner primarily uses the Target Acquisition and Designation System (TADS) to find and engage targets, the TADS can also be used as a backup vision-device for flying.

The Apache's PIC (Pilot In Command) in the back-seat and pilot/gunner in the front seat, are players in a real-life, hi-tech video game. Able to operate in any weather, Apache gunners can acquire multiple targets and ripple-fire their full range of weapons. A pair of Apaches could rip through a convoy in minutes. The AH-64A was essentially an analogue aircraft on a digital battle field. The AH-64"D" model is a further development, which is a fully digitized (four dual-channel MIL-STD 1553B data-busses) platform and some of them have the mushroom-shaped radar, only they have the name Apache Longbow.

The Longbow Fire Control Radar with its distinctive mast-mounted antenna is a 35 GHz radar system for the detection, location, classification and prioritization of tactical targets.

The AH-64D is armed with the Lockheed Martin/Boeing AGM-114D Longbow Hellfire air-to-surface missile which has a millimeter wave seeker which allows the missile to perform in full fire and forget mode. Range is 8km to 12km

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